

CLAIMS

1 1. A method of processing an electronic transfer of funds from a payer account held
2 at a payer financial institution via a financial settlement network to a payee account in
3 a currency that may be the same as or different from the funds in the payer account,
4 which transfer is initiated by a payment instruction transmitted by the payer to a payment
5 gateway associated with the financial settlement network; said method including the
6 steps of:

7 (a) providing at the payment gateway, a mapping between the payer account
8 and at least one credit card account in a currency nominated from those currencies
9 supported by the payer financial institution for settlement purposes;

10 (b) providing at the payer financial institution, a foreign exchange bridge for
11 determining internally any foreign exchange rates between payer accounts and the
12 mapped credit card accounts;

13 (c) the payment instruction transmitted by the payer including a payer account
14 number for debiting purposes, a payment amount and a payment currency code;

15 (d) the payment gateway selecting, in response to the payment instruction, a
16 credit card account wherein:

17 (i) if a credit card account having the same currency as the payment
18 currency code is mapped to the payer account number, that mapped credit card
19 account;

20 (ii) otherwise a credit card account in the same currency as the payer
21 account currency;

22 (e) the payment gateway creating a payment request message, including the
23 payment amount, payment currency code and the selected credit card account details and
24 passing the payment request message to the financial settlement network; and

25 (f) the financial settlement network routing the payment request message to
26 the payer financial institution wherein:

27 (i) if the payment currency code is for a currency not supported by
28 the payer financial institution, the financial network effects the foreign exchange
29 conversion externally of the payer financial institution; or

30 (ii) if the payment currency code is for a currency supported by the
31 payer financial institution, the payer financial institution effects any foreign
32 exchange conversion required via the system bridge.

- 1 2. The method of claim 1 wherein each payer account is mapped to respective credit
2 card accounts in the currencies supported for settlement.
- 1 3. The method of claim 1 wherein each currency supported by the payer financial
2 institution may be mapped directly to a bank identification number (BIN) for settlement
3 purposes.
- 1 4. The method of claim 1 wherein the foreign exchange bridge initiates return of a
2 payment authorisation message to the financial settlement network, which authorisation
3 message includes a currency code and amount for settlement of the funds transfer.
- 1 5. The method of claim 1 wherein, upon the payer financial institution ascertaining
2 that there are sufficient funds in the payer account to effect the transfer, the payer
3 financial institution returns a payment authorisation to the financial settlement network.
- 1 6. The method of claim 5 wherein the payment authorisation includes a settlement
2 currency code and settlement amount.
- 1 7. The method of claim 1 wherein, upon the payer financial institution ascertaining
2 that there are insufficient funds in the payer account to effect the transfer, the payer
3 financial institution returns a payment decline to the financial settlement network.
- 1 8. The method of claim 1 wherein in step (f)(i), the financial settlement network
2 calculates foreign exchange between settlement currency and the currency of funds in the
3 payer account.
- 1 9. The method of claim 1 wherein in step (f)(ii), the system bridge calculates foreign
2 exchange between settlement currency and the currency of funds in the payer account.

10. A method of processing an electronic transfer of funds, from a payer account via a financial settlement network to a payee account held at a payee financial institution in a currency that may be the same or different from funds in the payer account, which transfer occurs in response to a payment instruction transmitted by the payer to a payment gateway associated with the financial settlement network; said method including the steps of:

(a) providing at the payment gateway, a mapping between a plurality of payment currencies and at least one acquiring account in a currency supported by acquiring financial institutions;

(b) providing at each acquiring financial institution, a foreign exchange bridge for determining internally any foreign exchange rates between the mapped acquiring accounts and payee accounts;

(c) the payment instruction including a payment amount, payment currency code and acquiring account details identifying the payee financial institution;

(d) the payment gateway selecting, in response to the payment instruction, an acquiring account wherein:

(i) if an acquiring account for the payee is mapped to a payment currency having the same currency as the payment currency code, that acquiring account; or

(ii) if none of the mapped payment currencies corresponds to the payment currency code, generating an error message;

(e) the payment gateway creating a payment request message, including the payment amount, payment currency code and acquiring account details and passing the payment request message to the financial settlement network; and

(f) the financial settlement network routing the payment request message to the acquiring financial institution holding the acquiring account for the payee, wherein:

(i) if the payment currency code is for a currency not supported by the acquiring financial institution, the financial network effects the foreign exchange conversion externally of the acquiring financial institution; or

(ii) if the payment currency code is for a currency supported by the acquiring financial institution, the acquiring financial institution effects any foreign exchange conversion required via the system bridge.

1 11. The method of claim 10 wherein acquiring accounts are held at the payee
2 financial institution.

1 12. The method of claim 11 wherein funds are transferred internally from the
2 acquiring account to the payee account.

1 13. The method of claim 10 wherein acquiring accounts are held at an agent financial
2 institution that is linked to a subsidiary financial network of which the payee financial
3 institution is a member.

1 14. The method of claim 13 wherein funds are transferred externally from the
2 acquiring account to the payee account in accordance with clearing mechanisms of the
3 subsidiary financial network.

1 15. The method of claim 13 wherein the acquiring accounts mapped at step (a)
2 include accounts held at acquiring financial institutions that are also agent financial
3 institutions, which are agents for payments made in a currency supported by the
4 subsidiary financial network.

1 16. The method of claim 15 wherein the selection of the acquiring account at step (d)
2 instead proceeds as follows:

3 (i) if the payee account is held at an acquiring financial institution,
4 the acquiring account at the acquiring financial institution mapped to the
5 payment currency is selected;

6 (ii) else, if the payment currency corresponds to the currency
7 supported by a subsidiary financial network, the acquiring account at the agent
8 financial institution mapped to the payment currency is selected; or

9 (iii) if none of the mapped payment currencies corresponds to the
10 payment currency, generating an error message.

17. A method of processing an electronic transfer of funds from a payer account via a financial settlement network to a payee account held at a payee financial institution in a currency that may be the same or different from funds in the payer account, which transfer occurs in response to a payment instruction transmitted by the payer to a payment gateway; said method including the steps of:

(a) providing at the payment gateway, a mapping between a plurality of payment currencies and at least one acquiring account in a currency supported by acquiring financial institutions, which acquiring financial institutions include agent financial institutions linked to subsidiary national clearing networks;

(b) providing at each acquiring financial institution, a foreign exchange bridge for determining internally any foreign exchange rates between the mapped acquiring accounts and payee accounts;

(c) the payment instruction including a payment amount, payment currency code and acquiring account details identifying the payee financial institution;

(d) the payment gateway determining whether the payee financial institution is a member of the financial settlement network, wherein:

(i) if the payee financial institution is an acquiring financial institution, the payment gateway selecting, in response to the payment instruction, an acquiring account wherein:

(A) if an acquiring account for the payee is mapped to a payment currency having the same currency as the payment currency code, that acquiring account; or

(B) if none of the mapped payment currencies for the acquiring financial institution corresponds to the payment currency code, generating an error message; else

(ii) if the payee financial institution is a member of a subsidiary national network, the payment gateway selecting in response to the payment instruction, an acquiring account wherein:

(A) if an acquiring account held at an agent financial institution for the subsidiary clearing network has the same currency as the payment currency code, that acquiring account; or

32 (B) if none of the mapped payment currencies for the agent
33 financial institution corresponds to the payment currency code, generating
34 an error message;

35 (e) the payment gateway creating a payment request message, including the
36 payment amount, payment currency code and acquiring account details and passing the
37 payment request message to the financial settlement network; and

38 (f) the financial settlement network routing the payment request message to
39 the acquiring financial institution holding the acquiring account for the payee or
40 subsidiary clearing network, wherein:

41 (i) if the payment currency code is for a currency not supported by the
42 acquiring financial institution, the financial network effects the foreign exchange
43 conversion externally of the acquiring financial institution; or

44 (ii) if the payment currency code is for a currency supported by the acquiring
45 financial institution, the acquiring financial institution effects any foreign
46 exchange conversion required via the system bridge.

1 18. The method of claim 17 wherein, in step (d), the payment gateway determines
2 whether the payee financial institution is a member of the financial settlement network
3 by checking the identifying details provided in the payment instruction.

1 19. The method of claim 17 wherein, the error message generated in step (d)(i)(B)
2 indicates that the payment currency is not supported by the payee financial institution.

1 20. The method of claim 17 wherein, the error message generated in step (d)(ii)(B)
2 indicates that the payment currency is not supported by the subsidiary national clearing
3 network.